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utaries and on both of its principal branches to their sources. Mr. Norris also remarked that the experiment was of much importance in ascertaining if this valuable fish—the salmon—may not be gradually acclimated in rivers further south than those they now frequent.

Oct. 18th.

The President, DR. RUSCHENBERGER, in the Chair.

Twenty-one members present.

PROF. LEIDY directed attention to a collection of fossils, recently received for examination, through the Smithsonian Institution, from Rev. Thomas Condon, of Dalles City, Oregon. The fossils consist of remains of mammalia, obtained by Mr. Condon from the valley of Bridge Creek, a tributary of John Day's River, Oregon. They appear petrified in the same manner as the similar remains from the Mauvais Terres of White River, Dakota, but generally are less well preserved.

The greater number and more striking specimens belong apparently to a species of *Oreodon*, larger than any previously discovered and equaling in size *Merycochærus proprius*. Indeed, so far as we are familiar with the skull of both, the two are so nearly alike that one may be regarded as only a variety of the other, or at most both may be viewed as distinct species of the same genus. I am, however, disposed to view one as the offspring, by selection, of the other, and regard them as corresponding species of two genera which existed probably in different times or localities.

The species, which I propose to distinguish under the name of *Oreodon superbus*, is indicated by a much mutilated skull, together with mutilated crania, and portions of jaws with and without teeth, of half a dozen or more individuals. The specimens indicate a little variation in the size of the animal, but it appears to have been on the average about the same as *Merycochærus proprius*.

The form and constitution of the cranium are the same as in *Oreodon Culbertsoni*, but large inflated ear capsules or tympanic bones exist as in *Oreodon major* and *O. bullatus*.

The face is intermediate in character to that of *Oreodon major* and *Merycochærus proprius*. It is rather more abruptly narrowed in advance of the orbits than in the former, but not to the same degree as in the latter. The infra-orbital arches are proportionately of much greater depth than in *Oreodon major*, and the other species of the Mauvais Terres of Dakota, but are not so deep as in *Merycochærus proprius*. Thus in *Oreodon major* it measures 9 lines in depth, in *O. superbus* 18 lines, in *Merycochærus proprius* 23 lines.

The orbits are comparatively small, as in all the family of the Oreodonts. The lachrymal fossa is proportionately shallower than in *O. Culbertsoni* and *O. major*, and in this respect is more like that of *O. gracilis*.

The infra-orbital foramen in *Oreodon superbus* holds an intermediate position to that of *Merycochærus proprius* and that of the Mauvais Terres Oreodonts.

The jaws of *O. superbus* appear not quite so robust proportionately as in *Merycochærus proprius*, and the bone of the lower jaw is of less thickness.

The teeth of *O. superbus* and *Merycochærus proprius* agree in size and constitution, but the premolars and canines of the former appear more compressed laterally, or they are of less thickness from within outwardly, and are somewhat wider fore and aft.

I am prepared to admit that all the characters by which I have attempted to discriminate different species of *Oreodon* and *Merycochærus* are not fixed, but I nevertheless view them as sufficient to eliminate animals which would be generally recognised as distinct.

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The estimated length of the skull of *Oreodon superbus* is about fourteen inches. The length of the skull of *O. major* is about nine inches and one-third.

In a fragment of a lower jaw of *O. superbus*, imbedded in the matrix, the crown of the canine is an inch in width fore and aft. The three premolars behind occupy a space of two inches and a third. In *Merycochaerus proprius* the crown of the lower canine is little more than three-fourths of an inch fore and aft, and the premolars behind occupy a space of less than two inches.

Of other remains in the Oregon collection there are a few fragments of jaws of *Oreodon Culbertsoni*, one of which contains a series of the upper last premolar and the true molars. There also occur a few small fragments of molar teeth, which are recognizable as pertaining to *Agriochærus antiquus*. There is also here an inferior true molar of *Leptomeryx Evansi*, and likewise there are several mutilated molars of *Anchitherium Bairdi*. These specimens are all marked as having been obtained from the "Big-bottom of the John Day."

An interesting specimen from Bridge Creek consists of a small fragment of an upper jaw, containing two teeth, apparently of a tapiroid animal, and probably the same as that indicated by a tooth from the Mauvaises Terres, and referred to a species with the name of *Lophiodon occidentalis*. The teeth appear to be the hinder two premolars, or perhaps are the last of these and the next true molar. They are much worn, and the second tooth has its back part broken off. They may belong to a different genus from *Lophiodon*, and they do exhibit slight peculiarity, but their condition renders a positive determination uncertain. The specimen indicates an animal about the size of the living *Tapirus terrestris*.

At least two species of *Rhinoceros* are indicated by remains from Bridge Creek valley. One of these I think to be the *Rhinoceros occidentalis*, originally founded on remains from the Mauvaises Terres of White River, Dakota. Several well preserved upper molars, and a fragment of the lower jaw with an entire molar, marked "John Day's," neither differ in constitution, form or size from those of the last named species.

An isolated upper molar, marked "Alkali Flat," clearly belongs to a different species from the former, and may perhaps pertain to the species *Rhinoceros hesperius*, founded on the ramus of a lower jaw from California. From the outer wall of the crown there project into the median valley three folds, and a small fold projects in the vicinity of the latter from the postero-internal lobe. The arrangement of these folds resembles that of a temporary molar from the Niobrara River, of Nebraska (fig. 5, pl. xxiii, Ext. Mam. Fauna of Dakota and Nebraska) referred to *Rhinoceros crassus*. It is not improbable that the tooth may belong to a peculiar species, but the material thus far brought to our notice is insufficient to determine the question positively.

Fragments of a canine tooth in the collection indicate apparently a huge species of *Elotherium*, perhaps the *E. superbum*. Another mutilated canine apparently belongs to a smaller species, perhaps the *E. ingens*.

Two inferior molars apparently indicate a Peccary about the size of the living *Dicotyles torquatus*.

A small fragment of an upper jaw contains a mutilated molar tooth, indicating a species of *Anchitherium*, larger than *A. Bairdi*, of the Mauvaises Terres of White River. It may perhaps indicate a different though closely allied genus, as the median lobes are proportionately better developed in relation with the inner and outer ones than in the true *Anchitherium*. The animal would appear to hold a position intermediate to *A. Bairdi* and *Anchippus texanus*. Awaiting the opportunity of examining additional material, I would propose for the species the name of *ANCHITHERIUM CONDONI*, in honor of the Rev. Thomas Condon, the discoverer of these and the preceding fossils which have been the subjects of examination. The fore and aft diameter of the tooth

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has measured about eight lines, the transverse diameter about three-fourths of an inch.

PROF. LEIDY further stated that in a recent visit to the Schuylkill river at Fairmount, to seek for specimens of *Urnatella*, though he had been unsuccessful in obtaining living ones within reach from the shore, he had found in the same positions occupied by the former, an abundance of *Cordylophora*. This is the first time that he had noticed this interesting compound hydroid polyp in the vicinity of Philadelphia, and he was surprised that until now it had escaped his notice. *Cordylophora* was first detected by him in this country at Newport, R. I. He had not been able to satisfy himself that it was a different species from the European *Cordylophora lacustris*, first described by Prof. Allman of Edinburgh. It appears, however, to be much smaller. Prof. Allman represents the *C. lacustris* several inches in length, with the polyps a line in length. Ours is not more than half the size. As a variety it might be named *Cordylophora americana*.

Oct. 25th

The President, DR. RUSCHENBERGER, in the Chair.

Twenty-four members present.

PROF. LEIDY stated that he had recently received from Prof. Hayden, at the latest date, at Fort Bridger, several boxes of fossils, most of them remains of Crocodiles and Turtles from Church Buttes, the junction of the Big Sandy and Green Rivers, &c. Of these he proposed to give a notice at another period. Among the mammalian remains there were some of special interest, and to these he wished to direct attention at the present time. The first exhibited consisted of the crowns of teeth and fragments of others, of a pachydermous animal, approaching in size the common Ox. The crown of a lower true molar resembles in its constitution those of *Palæotherium*, *Chalicotherium* and *Titanothereum*, being composed of a pair of fore and aft conjoined pyramidal lobes with crescentic summits. It measures 16 lines antero-posteriorly and 10 lines transversely. Fragments of upper true molars exhibit the outer part of the crown composed of a pair of lobes exactly as in *Hyopotamus*. The inner portion of the crown is composed of a pair of simple cones, broad and low, the front one considerably larger than the back one. One of the specimens in the entire condition of the crown measured about 22 lines fore and aft and 18 lines transversely. The crown of an upper premolar has its outer part composed of a pair of conjoined cones with acute summits and sides. The inner portion of the crown consists of a single broad simple cone embraced in front and behind by a basal ridge. The antero-posterior diameter of the crown externally measures $9\frac{1}{2}$ lines; the transverse diameter is an inch.

The teeth indicate an animal apparently allied to *Chalicotherium* and *Titanothereum*, but different from either. The name of *PALÆOSYOPS PALUDOSUS* was proposed for it. The remains were obtained at Church Buttes, and belong, as Prof. Hayden reports, to the tertiary formation of the Bridger Group.

Another fossil exhibited was discovered by Prof. Hayden at Black's Fork.

It consists of a fragment of the lower jaw, containing two teeth, of an animal about as big as a Rabbit. The teeth, consisting of the two last molars, resemble in their construction those of the Peccary, but the constituent lobes of the crown are more pointed and smoother. The second true molar has four lobes: the last, an additional lobe. The two teeth together occupy a space of less than 5 lines; the depth of the jaw beneath the penultimate molar is three lines. For the animal, the name of *MICROSUS CUSPIDATUS* was proposed.

Another fossil consists of the greater part of the right ramus of a lower jaw partially imbedded in sandstone, and was also obtained by Prof. Hayden at 1870.]